

APRIL 1990

SURVEY SHEET  
FOR INSPECTION OF HAZARDOUS WASTE FACILITIES

Name of Facility: Huntsman Chemical Corporation  
Address: 5100 Bainbridge Blvd.  
Chesapeake VA 23320  
EPA ID Number: VAD086302866  
Facility Representative: Van H. White  
Title: Manager of Environmental Affairs  
Telephone Number: (804) 494-2740  
Inspector's Name: Erica S. Dameron  
Title: Environmental Engineer Senior  
Date of Inspection: MAY 23, 1990

1. What is the business activity of the firm? (i.e., furniture mfg., metal plating, recycling, etc.) manufacturers of styrene  
resins into polymerized polystyrene pellets

2. Give a brief description of the waste stream(s) and hazardous waste code(s) generated by the firm.

waste petroleum naphtha maint dept. D001/D008  
waste process stream (styrene, ethylbenzene, xylene, cumene) F003  
waste solvents from the laboratories (xylene, acetone, ethylbenzene) F003/F005  
methanol, toluene, MEK) and chemical from plant cleanout (see list)

3. List the amounts of hazardous waste generated on a monthly basis (use the highest monthly total) and the greatest amount accumulated at the site of each type of waste generated.

Waste Code	Amount Generated	Amount Accumulated
<u>D001/D008</u>	<u>688 lbs.</u>	<u>688 lbs</u>
<u>F003</u>	<u>275,380 lbs</u>	<u>48,940 lbs.</u>
<u>F003/F005</u>	<u>3 drums</u>	<u>1 drum</u>
<u>see attached list</u>		
<u>for other wastes</u>		

4. Does the facility ever generate greater than:  
1 kg. of acutely toxic waste (P listed waste or F020-F023 and F026-F027)? YES ☐ NO ☒

100 kg of clean-up from a spill of P listed waste or F020-F023 and F026-F027 waste? YES ☐ NO ☒

If yes, then the facility is a generator.

5. How is the waste presently being handled? Where is it sent?

D001 Safety Kleen Chesapeake VA  
F003 Oldover  
F003/F005 EcoFlo, Inc., Greensboro NC NCD980842132  
and other chemicals from lab. cleanout

6. Does the facility generate any hazardous waste that is excluded from regulation? If yes, list the waste and the basis for exclusion. YES ☐ NO ☒

7. Does the facility generate any hazardous waste that is burned for energy recovery (hazardous waste fuel)? If yes, list the waste, where it is sent, and complete the Recyclable Materials Checklist. YES ☒ NO ☐

F003 sent to Oldover and burned for energy recovery

8. Does the facility generate any used oil that is burned for energy recovery (used oil fuel), including used oil that is also a characteristic hazardous waste, or used oil that is mixed with hazardous waste generated by a conditionally exempt Small Quantity Generator? If yes, list the waste, where it is sent, and complete the Recyclable Materials Checklist. YES ☐ NO ☒

9. Does the facility generate any hazardous waste that is reclaimed to recover economically feasible amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these? YES ☐ NO ☒  
If yes, list the waste, where it is sent, and complete the Recyclable Materials Checklist.

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10. Does the facility generate, transport or collect spent lead-acid batteries? If yes, complete the Recyclable Materials Checklist. YES ☐ NO ☒

11. Based on the above, the facility is a:

- a. conditionally exempt small quantity generator
- b. small quantity generator
- ☒ c. generator
- d. permitted or interim status TSD
- e. unpermitted TSD (explain in comments section)

[Circle One]

12. Check accumulation times and quantities for the three types of generators. If the times or quantities are exceeded, then the facility is moved up to the next category. Complete the appropriate checklist(s).

A conditionally exempt small quantity generator can accumulate indefinitely, but if the amount accumulated ever exceeds 1000 kgs. then he becomes a small quantity generator. At the time the 1000 kg. limit is passed, the accumulation times for small quantity generators begins.

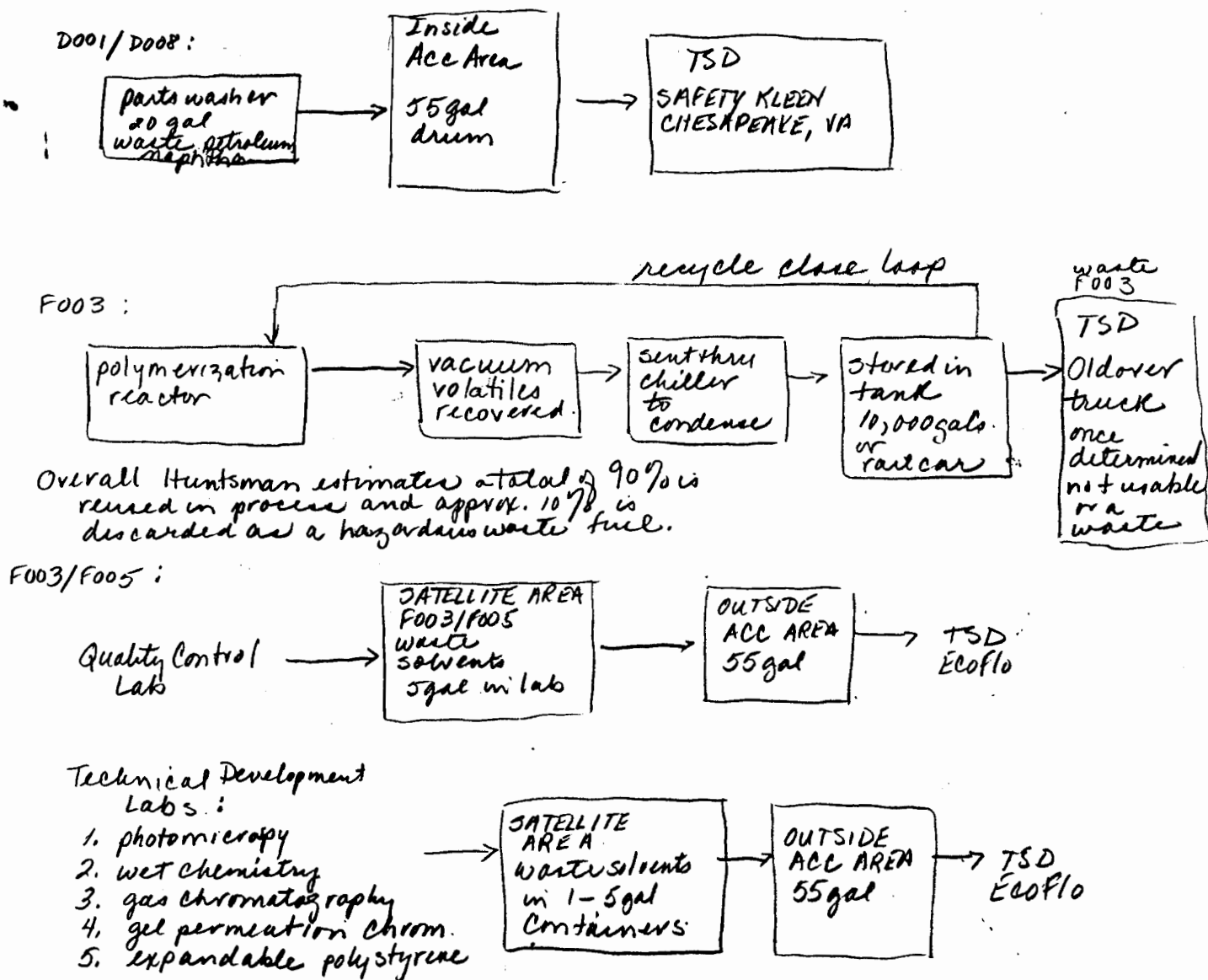
Small quantity generators can accumulate up to 180 days or 270 days if the disposal site is over 200 miles away. However, if at any time over 6000 kgs. of waste is accumulated, then the small quantity generator becomes a generator.

13. List each container and tank accumulation area. Specify the number and capacity of each tank. [Note: Include any satellite accumulation areas. Verify that only 55 gallons of any particular hazardous waste code (or one quart of acutely toxic waste) is at that site.]

Location	Number of Containers	Number of Tanks	Capacity
OUTSIDE ACC AREA	1		55 gal
INSIDE ACC AREA	2		55 gal
SAFETY KLEEN	1		20 gal
PART WASHER			
SATELLITE AREA			
Q.C. Lab	1		5 gal.
T.D. Labs	5		1-5 gal.
rail road cars	3		20,000 gal
tanks	8		4C 10,000 gal, 4C 12,000 gal
14. Comments			

## 15. Waste Management Flow Diagram

(On this page sketch a brief, but detailed, flow diagram that includes where the waste is generated, the steps through a treatment system (if any), the steps through storage including satellite accumulation areas. Do this for each waste stream including excluded hazardous waste. Include any wastewater treatment facilities at the company, and verify the type of units included in the system, and any hazardous waste streams going to WWT.)



Chemicals from lab clean out sent to EcoFlo, Inc. in April 1990

U239	xylene	2.5 gals
D001/D002	dimethyl dicoco ammonium chloride	4 pints
D001/D002	bis(tridecyl)esters of sodium sulfon succinic acid	2 @ 1/4 pint
D001/D002	ammonium in isopropanol	1 @ 1/16 pint
U113	ethyl acrylate	3 gals.
U108 ✓	dioxane	2 quarts
U031 ✓	butyl alcohol	1 @ 1/8 qt.
U019 ✓	benzene	2.75 gals.
D001	isopropanol	1 @ 1/2 gal.
D001	dimethylaminoethanol	1 @ 1/2 qt
D001	ethyl benzene	1 pint
D001	naphthalbenzene	1 @ 1/2 pint
U077 ✓	1,2 dichloroethane	1 pint
D001	ethyl benzene	1 quart
D001	hexane	1 @ 1/2 gal
U159 ✓	2-butanone	1.25 gal
U196	pyridine	1 gal
U108 ✓	dioxane	9 quarts
U213	tetrahydrofuran	2 quart
D001	1-butanethiol	1 @ 1/4 pint
D001	diethyl amino ethanol	1 @ 3/4 qt
U002	acetone	1 pint
D001	{ ceric ammonium sulfate tetra butyl ammonium perchlorate ammonium persulfate	1.75 lbs.
D001/D007	ammonium dichromate	0.5 lbs.
D002	{ methacrylic acid, oxalyl chloride potassium platinum chloride, cobalt chloride, hydrochloric acid	7.5 gallons
D009	Newsler's Reagent	500 mls.
U204	selenium dioxide	50 grams
D009	mercury copper amalgam	0.75 lbs
D005	barium carbonate and barium sulfate	1.25 lb
D006	cadmium stearate	5.0 lbs
P008	4-amino anti pyrine	0.125 lbs.
D007	potassium chromate and sodium chromate	2.0 lbs
D011	silver sulfate	0.125 lbs.

OCTOBER 1989

CHECKLIST FOR HAZARDOUS WASTE INSPECTION OF  
LAND-RESTRICTED WASTE MANAGEMENT

Name of Facility: Huntsman Chemical Corporation

Address: 5100 Bainbridge Blvd  
Chesapeake VA 23320

EPA ID Number: VAD086302866

Facility Representative: Van H. White

Title: Manager of Environmental Affairs

Telephone Number: (804) 494-2740

Inspector's Name: Erica S. Dameron

Title: Environmental Engineer Senior

Date of Inspection: May 23, 1990

1. Does the facility generate, transport, or treat, store or dispose any land-restricted wastes? (See Attachment)

☒ YES ☐ NO

If yes, please list:

F003  
F003/F005  
U108 U031 U019 U077 U159

15.1.A.3.

2. Is land disposal of wastes listed in 1 above occurring?

YES ☒ NO ☐

If yes, then:

15.1.A.3.a.

a. Has the facility been granted an extension to the effective date for land restrictions applicable to its restricted waste? (See effective dates listed in Attachment)

YES ☐ NO ☒ NA

15.1.A.3.b.

b. Has the facility been granted an exemption from prohibition pursuant to a petition for those land-restricted wastes and units covered by the petition?

YES ☐ NO ☒ NA

15.1.A.3.c.	c. Is the waste generated by small quantity generators of less than 220 pounds (100 kg) of hazardous waste, or 1 kg of acutely hazardous waste, per month?	YES	NO NA
15.1.E.	d. Has the owner/operator submitted an application for a case-by-case extension to the effective date of any applicable restriction?	YES	NO NA
15.1.F.	e. Has the owner/operator been granted a petition seeking an exemption from a prohibition for the disposal of hazardous waste in a particular unit or units?	YES	NO NA
15.1.D.1.	<p>3. Is the facility treating land-restricted wastes in a surface impoundment or series of surface impoundments?</p> <p>(If <u>no</u>, go to number 6)</p> <p>[If <u>yes</u>, complete surface impoundment checklist]</p> <p>[Note: Evaporation of hazardous constituents as the principal means of treatment is not considered to be an acceptable form of treatment for land restricted wastes.]</p> <p>If <u>yes</u>, does the facility meet the following requirements:</p>	YES	(NO)
15.1.D.1.b	a. Are the residues of the treatment analyzed as specified in VHWMR Sections 15.1.G. or 15.3.C. to determine if they meet the applicable treatment standards or VHWMR Section 15.4, or where no applicable treatment standard exists, the applicable prohibition levels specified in VHWMR Section 15.3?	YES	NO NA
15.1.G.			
15.3.C.			
15.4.			
15.3.			
15.1.D.1.c.	b. Has the owner or operator installed two or more liners and a leachate collection system consisting of an upper and lower liner designed, constructed and operated to prevent the migration of any constituents through the liners?	YES	NO NA
9.10.B.1.			
10.10.B.3.			
15.1.D.1.c.	c. Is the facility in compliance with the applicable groundwater monitoring requirements of VHWMR Section 10.5.?	YES	NO NA
10.5.			



15.1.D.1.d.	4. Has the owner or operator submitted a written certification to the Executive Director that items 4 a-c have been met which states,  "I certify under penalty of law that the requirements of 15.1.D.1.c. have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."?	YES	NO /
15.1.D.1.d.	5. Has the owner/operator submitted a copy of the waste analysis plan for his restricted wastes?	YES	NO /
15.1.G.1.	6. Has the owner/operator determined if his waste is a land restricted waste?	<input checked="" type="radio"/> YES	NO
15.1.G.1a.	7. For restricted wastes which the generator is managing for which he has not met the applicable treatment standards, has the generator accompanied each shipment of waste with a notification to the treatment facility of the appropriate treatment standards and any applicable prohibitions?  Did the notification include the following information:	<input checked="" type="radio"/> YES	NO
15.1.G.1.b.1a	- EPA Hazardous Waste Number;	<input checked="" type="radio"/> YES	NO
15.1.G.1.b.1b	- The corresponding treatment standards and all applicable prohibitions set forth in VHWMR Section 15.3.C;	<input checked="" type="radio"/> YES	NO
15.1.G.1.b.1c	- The manifest number associated with the shipment of waste;	<input checked="" type="radio"/> YES	NO
15.1.G.1.b.1d	- Waste analysis data, where available?	YES	NO /
15.1.G.1.b.	8. For restricted wastes which the generator has determined can be land disposed without further treatment, has the generator accompanied each shipment of waste with a notification and certification to the land disposal facility that the waste meets the applicable treatment standards and the applicable prohibitions of VHWMR Section 15.3.C?	YES	NO /

a. Did the notification contain the following information:

15.1.G.1.b.1a	- EPA Hazardous Waste Number;	YES	NO /
15.1.G.1.b.1b	- The corresponding treatment standards and all applicable prohibitions;	YES	NO /
15.1.G.1.b.1c	- The manifest number associated with the shipment of waste; and	YES	NO /
15.1.G.1.b.1d	- Waste analysis data, where available?	YES	NO /
15.1.G.1.b.2.	b. Was the certification signed by an authorized representative, and did it state the following:  "I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in VHWMR Section 15.4. and all applicable prohibitions set forth in VHWMR Section 15.3.C. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment."	YES	NO /
15.1.G.1.c.	9. For restricted wastes which have received a case-by-case exemption, been granted an exemption through petition, or those wastes subject to a national variance, has the generator forwarded a notice with the waste to the land disposal facility stating that the waste is exempt from the land disposal restrictions?	YES	NO /
15.1.G.2.	10. <u>For Treatment Facilities ONLY:</u> Has the owner or operator of the treatment facility tested the treatment residues or extract to assure that they shall meet the applicable treatment standards?	YES	NO /
15.1.G.2.	a. Has this testing been done <sup>1</sup> at the frequency stated in the waste analysis plan?	YES	NO /
15.1.G.2.a. 15.1.G.1.a.	b. For treatment residuals which do not meet the applicable treatment standards, has the facility filed the notification in 8 above as a generator to any subsequent treatment facilities?	YES	NO /

15.1.G.2.b.

c. For treated wastes meeting the applicable treatment standards, or for wastes not subject to any treatment standards, has a certification been signed and accompanies each shipment stating:

YES NO /

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to achieve the performance levels specified in VHWMR Sections 15.4 and 15.3.C. without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

OR (for wastes with treatment standards expressed as technologies)

"I certify under penalty of law that the waste has been treated in accordance with the requirements of VHWMR Section 15.4.C. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

11. Comments:

Waste recovered volatiles were incorrectly  
identified on manifest as D001 not F003, however,  
all land ban certification and treatment standards  
were correct.

## Attachment - Land Restricted Wastes

<u>Waste</u>	<u>Effective Date</u>
F001 - F005	11/08/86
F001 - F005 from Small Quantity Generators	11/08/88
F001 - F005 generated via RCRA corrective actions or CERCLA response actions	11/08/88
Hazardous wastes containing less than 1% total F001 - F005 solvent constituents	11/08/88
F001 - F005 soil and debris resulting from RCRA corrective actions or CERCLA response actions	11/08/90
<hr/>	
Dioxin wastes F020 - F023, F026 - F028	11/08/88
F020 - F023, F026 - F028 soil and debris resulting from RCRA corrective actions or CERCLA response actions	11/08/90

### California Listed Wastes

Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 ppm (mg/l). [Effective 7/8/87]

Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing any of the following metals or compounds of these metals at concentrations greater than or equal to those specified below:

Arsenic (as As)	500 mg/l
Cadmium (as Cd)	100 mg/l
Chromium (as Cr VI)	500 mg/l
Lead (as Pb)	500 mg/l
Mercury (as Hg)	20 mg/l
Nickel (as Ni)	134 mg/l
Selenium (as Se)	100 mg/l
Thallium (as Tl)	130 mg/l

Liquid hazardous wastes having a pH less than or equal to 2.0. [Effective 7/8/87]

Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm. [Effective 7/8/87]

Liquid hazardous wastes, primarily water, containing greater than or equal to 1000 mg/l HOCs, but less than or equal to 10,000 mg/l HOCs. [Effective 7/8/87]

California waste contaminated soil and debris resulting from RCRA corrective actions or CERCLA response actions. [Effective 11/8/90]

Liquid hazardous wastes, not primarily water, containing greater than or equal to 1000 mg/l HOCs. [Effective 11/8/88]

Nonliquid (non-RCRA/CERCLA) hazardous wastes containing greater than or equal to 1000 mg/l HOCs. [Effective 11/8/88]

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<u>First Third Wastes</u>	<u>Effective Date</u>
F006 (nonwastewater)	8/8/88
K001	8/8/88
K004 (nonwastewater)	8/8/88
K008 (nonwastewater)	8/8/88
K015	8/8/88
K016	8/8/88
K018	8/8/88
K019	8/8/88
K020	8/8/88
K021 (nonwastewater)	8/8/88
K022 (nonwastewater)	8/8/88
K024	8/8/88
K025	8/8/88
K030	8/8/88
K036 (nonwastewater)	8/8/88
K037	8/8/88
Nonexplosive K046 (nonwastewater)	8/8/88
K047	8/8/88
K048 - K052	8/8/90
K060 (nonwastewater)	8/8/88
K061 (nonwastewater less than 15% Zn)	8/8/88
K061 (nonwastewater greater than 15% Zn)	8/8/88 - 8/8/90
K062	8/8/88
Non-CaSO4 K069 (nonwastewater)	8/8/88
K071	8/8/90
K083 (nonwastewater)	8/8/88
K086 (solvent washes)	8/8/88
K087	8/8/88
K090	8/8/88
K100	8/8/88
K101	8/8/88
K102	8/8/88
K103	8/8/88
K104	8/8/88
Soil and debris contaminated with first third wastes that have treatment standards based on incineration	8/8/90

"Soft Hammer" First Third Wastes

[Effective Date 5/8/90 or as treatment standards are established]

F007	P001	U007	U151
F008	P004	U009	U154
F009	P005	U010	U155
F019	P010	U012	U157
K004	P011	U016	U158
K008	P012	U018	U159
K011	P015	U019	U171
K013	P016	U022	U177
K014	P018	U029	U180
K017	P020	U031	U185
K021	P030	U036	U188
K022	P036	U037	U192
K031	P037	U041	U200
K035	P039	U043	U209
K036	P041	U044	U210
K046	P048	U046	U211
K060	P050	U050	U219
K061	P058	U051	U220
K069	P059	U053	U221
K073	P063	U061	U223
K083	P068	U063	U226
K084	P069	U064	U227
K085	P070	U066	U228
K086	P071	U067	U237
K101	P081	U074	U238
K102	P082	U077	U248
K106	P084	U078	U249
	P087	U086	
	P089	U089	
	P092	U103	
	P094	U105	
	P097	U108	
	P102	U115	
	P105	U122	
	P108	U124	
	P110	U129	
	P115	U130	
	P120	U133	
	P122	U134	
	P123	U137	

APRIL 1990

CHECKLIST FOR HAZARDOUS WASTE  
INSPECTION OF GENERATORS

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Title: Environmental Engineer Senior  
Date of Inspection: MAY 23, 1990

Va. Hazardous Generator Checklist  
Waste Reg.

- 6.3. 1. Is a manifest system currently being used for all hazardous waste shipped off site? ☒ YES NO
- 6.2.C. 2. Has the generator determined that the transporter(s) and facility have an EPA ID number? [Note: Shipments to POTWs must be manifested and the POTW must meet all permit-by-rule requirements of VHWMR Section 11.8.B.] ☒ YES NO
- 5.5.A.7 3. Has the generator determined that the transporter has a valid EPA Identification number and a valid Virginia Transporter Permit? ☒ YES NO
- 6.3 4. Is the following information on the  
5.3.B.1. manifest:

- a. The generator's name, mailing address, EPA ID Number, and telephone number? ☒ YES NO
- 5.3.B.2. b. A unique five digit number assigned to this manifest by the generator? ☒ YES NO
- 5.3.B.3. c. The total number of pages of the manifest? ☒ YES NO
- 5.3.B.4. d. The company name and EPA ID number of each transporter used? ☒ YES NO
- 5.3.B.5. e. The company name, site address, and EPA ID number of the facility designated to receive the waste? ☒ YES NO
- 5.3.B.6. f. The U. S. DOT description of each waste to include its proper shipping name, hazard class, and I.D. number (UN/NA) as identified in the Virginia Regulations Governing the Transportation of Hazardous Material? ☒ YES NO
- 5.3.B.7. g. The quantities of waste being shipped? ☒ YES NO
- 5.3.C. h. The following certification: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by (mode of transportation) according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to a degree I have determined to be economically practicable and that I have selected the practicable method of treatment; storage, or disposal currently available to me which minimizes the present and future threat to human health and environment." ☒ YES NO



- 6.5.C.2. 5. Have manifests been received from the TSD facility for any waste which was shipped over 45 days ago? ☒ YES NO
- If no, has the generator filed an exception report with the Executive Director which included: YES NO *NA*
- 6.5.C.2.a. a. A legible copy of the manifest for which the generator does not have confirmation of the delivery; and YES NO *NA*
- 6.5.C.2.b. b. A cover letter explaining the efforts taken to locate the shipment? YES NO *NA*
- 6.4.E.1. 6. Is hazardous waste being accumulated on-site for less than 90 days? If yes, ☒ YES NO
- 6.4.E.1.a. a. Is the waste stored in containers? ☒ YES NO  
In tanks? ☒ YES NO  
(If answer to either question is yes, fill out appropriate checklists. If both answers are no, interim status or a TSD permit is required - fill out facility checklist to determine compliance status).
- 6.4.E.1.b. b. Is the date that accumulation begins clearly marked and visible for inspection on each container? YES ☒ NO ✓
- 6.4.E.1.c. c. Is each container and tank clearly marked with the words "Hazardous Waste"? *railroad cars not marked* YES ☒ NO ✓
- 6.4.E.1.e. d. Has the generator notified the Executive Director by March 1, 1988, of the exact location of the existing accumulation areas, and at least 15 days prior to use for subsequently established accumulation areas? YES ☒ NO ✓
- 6.4.E.2. 7. Does the generator accumulate (store) hazardous waste on-site for greater than 90 days? If yes, interim status or a TSD permit is required - fill out facility checklist to determine compliance status. YES ☒ NO
- 6.4.E.1.d. 8. Does the generator record inspections *not for new accumulation area* YES ☒ NO ✓

- 9.1.F.4. in an inspection log?  
*tank inspection*
- 6.4.E.1.d. 9. Have facility personnel successfully ☒ YES NO  
9.1.G.1. completed a program of classroom training  
or on-the-job training in hazardous waste  
management procedures?
- 9.1.G.2. 10. Have new employees to the facility ☒ YES NO  
successfully completed training mentioned  
above within 6 months of their employment  
or assignment to the facility?
- 9.1.G.3. 11. Do personnel participate in an annual ☒ YES NO  
review of the initial training?
12. Does the facility maintain a record  
of the following:
- 9.1.G.4.a. a. job titles for each position at the ☒ YES NO  
facility related to hazardous waste  
management; and
- 9.1.G.4.a. b. the name of the employee filling ☒ YES NO  
each job; and
- 9.1.G.4.b. c. a written job description for each ☒ YES NO  
position in (a); and
- 9.1.G.4.c. d. a written description of the type ☒ YES NO  
and amount of both introductory and  
continuing training that will be given  
to each person filling a position  
listed in (a); and
- 9.1.G.4.d. e. Records that document that the ☒ YES NO  
training or job experience required  
above has been given to, and completed  
by facility personnel?
- 9.2.B. 13. At the facility, is the following  
9.2.D. equipment installed:

- 9.2.B.1. a. An internal communications or alarm system capable of providing immediate emergency instructions to facility personnel if the hazardous waste generation or accumulation areas are threatened by hazardous waste release, fire or explosion? ☒ YES NO
- 9.2.B.2. b. A device (at the scene of hazardous waste generator operations) capable of summoning emergency assistance from Police, Fire Departments, etc.? ☒ YES NO  
*telephone, 2 way radio, direct telephone to fire dept/police*
- 9.2.B.3. c. Portable fire extinguishers, fire control, and decontamination equipment?; and ☒ YES NO
- 9.2.B.4. d. Water at adequate volume and pressure to supply expected fire demands, foam producing equipment, automatic sprinklers or water spray system? ☒ YES NO  
*supply water tank 500,000 gallons*
- 9.2.C. 14. Is a record of tests and inspections of items 13 a-d maintained at the facility? ☒ YES NO
- 9.2.E. 15. Does the facility have adequate aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment during emergencies? ☒ YES NO
- 6.4.E.1.d. 16. Does the facility have an established contingency plan to deal with any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the air, soil, ground water or surface water? ☒ YES NO  
9.3.
- 9.3.B. 17. Does the contingency plan contain the following elements:

9.3.B.(1,2).

a. A detailed description of emergency procedures facility personnel will implement in response to fires, explosions, or unplanned releases of hazardous waste to air, soil, and water?

☒ YES ☐ NO

9.3.B.3.

b. A description of arrangements agreed to by local police departments, fire departments, hospitals, contractors and Commonwealth and local emergency response teams to coordinate emergency services, as required?

☒ YES ☐ NO

9.3.B.4.

c. A listing of names, addresses, and office and home phone numbers of all persons qualified to act as emergency coordinator? List primary Coordinator.

☒ YES ☐ NO

Name D. Daneau

Title Plant Manager

Telephone 804 494-2560 (h) 804 481-7522

9.3.B.5.

d. A list of appropriate emergency equipment necessary to cope with emergencies at the generator facility?

☒ YES ☐ NO

9.3.B.6.

e. Does this list specify the location and physical description of each item on the list and a brief outline of its capabilities?

☒ YES ☐ NO

9.3.B.6.

f. An evacuation plan for the generator facility where there is a possibility that evacuation could be necessary?

☒ YES ☐ NO

9.3.C.

g. Have copies of the contingency plan been sent to all local police departments, fire departments, hospitals and Commonwealth and local emergency response teams?

YES ☒ NO

List:

Chesapeake General Hospital

Fire Dept City of Chesapeake

Norfolk Gen Hospital

Local emergency response teams (LEPC)

need to send to Commonwealth + Police

9.3.C. h. Is there documentation to indicate the personnel listed above received the contingency plan? YES ☒ NO ☐ *not sent to Police and Commonwealth*

9.3.F.(9,10). i. Has the contingency plan ever been implemented? ☒ YES ☐ NO

If yes, was a written report filed with the Executive Director and were the Executive Director and other required authorities properly notified before operations resumed? YES NO *NA*

6.4.E.3.a. 18. Does the generator have satellite accumulation areas? If yes, ☒ YES ☐ NO

a. Is the area located at or near the point of hazardous waste generation where the wastes initially accumulate? ☒ YES ☐ NO

6.4.E.3.a.(1) 9.8.B. b. Are the containers in good condition? ☒ YES ☐ NO

6.4.E.3.a.(1) 9.8.C. c. Are the containers compatible with the waste? ☒ YES ☐ NO

6.4.E.3.a.(1) 9.8.D.1. d. Are the containers kept closed except as necessary to add or remove waste? ☒ YES ☐ NO

6.4.E.3.a.(2) e. Are the containers marked with the words "Hazardous Waste" or other words that identify the contents of the container? ☒ YES ☐ NO

6.5.E.3.b. f. Are amounts in excess of those allowed being accumulated in the satellite accumulation area? If yes, YES ☒ NO ☐

(1) Has the generator marked the excess amount with the date the excess amount began accumulating? YES NO *NA*

(2) Has the generator either removed the excess amount within three days of the date of excess accumulations or has he complied with all other provisions for accumulation areas listed in question 5 on this checklist? YES NO *NA*  
Namely, has he notified the

Executive Director about the location of the accumulation area?

If no, what has the generator chosen to do? \_\_\_\_\_

6.5.A.

19. Does the generator retain copies of all manifests, annual reports, and test results for at least three years?

☒ YES NO

6.5.B.

20. Has the facility submitted an annual report for the preceding calendar year?

☒ YES NO

21. Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APRIL 1990

INSPECTION CHECKLIST FOR  
THE USE AND MANAGEMENT OF CONTAINERS

Name of Facility: Huntsman Chemical Corporation  
Address: 5100 Bainbridge Blvd.  
Chesapeake VA 23320  
EPA ID Number: VAD086302866  
Facility Inspection Representative: Van H. White  
Title: Manager of Environmental Affairs  
Telephone Number: (804) 494-2740  
Inspector's Name: Erica S. Dameron  
Title: Environmental Engineer Senior  
Date of Inspection: MAY 23, 1990

Va. Hazardous  
Waste Reg.

9.8.B.

1. Are all containers holding hazardous waste in good condition, i.e., not showing signs of leakage or corrosion or any other deterioration/deformation?

☒ YES NO

If no, list the storage/accumulation areas where there are problems and the type of problem:

Location

Problem

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9.8.C.

2. Are the containers lined or made of materials compatible with hazardous waste placed into them so that the container will not react with, or otherwise be incompatible with, the hazardous wastes stored?

☒ YES NO

- 6.4.E.1.b. 3. Is the date upon which each period of accumulation begins clearly marked and visible for inspection on each container? YES ☒ NO ✓
- 6.4.E.1.c. 4. Is the container labeled or marked clearly with the words "Hazardous Waste"? *railcars* YES ☒ NO ✓
- 9.8.D.1. 5. Are all containers holding hazardous waste kept closed during storage except as necessary to add or remove waste? ☒ YES NO
- If no, list the locations where open containers are found. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 9.8.E. 6. Are areas where hazardous waste containers are stored inspected by the owner/operator at least weekly? YES ☒ NO
- 9.1.F.2.a. 7. For large quantity generators and  
9.1.F.4. TSD facilities only:  
6.4.E.1.d. Is an inspection log maintained? YES ☒ NO
- 9.8.F. 8. Are containers holding ignitable or reactive waste located at least 50 ft. from the facility's property line? ☒ YES NO
- 9.8.G.1. 9. Are incompatible wastes placed in separate containers? YES NO *NA*
- 9.8.G.3. 10. Are storage containers holding hazardous wastes which are incompatible with any materials or other hazardous wastes stored nearby separated from the other materials or protected from them by means of dikes, berms, walls, or other devices? YES NO *NA*



6.4.E.3.a.

11. For satellite accumulation areas:

a. Are there more than 55 gallons of any one type of waste present in the area?

YES ☒ NO

If yes,

6.4.E.3.b

b. Has the amount in excess of 55 gallons been in the satellite accumulation area longer than 3 days?

YES NO *NA*

If yes,

6.4.E.3.b.

6.4.E.1.b.

c. Has the company notified the Department about the location of the accumulation area?

YES NO *NA*

10. Comments:

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APRIL 1990

**CHECKLIST FOR RCRA INSPECTION OF RECYCLABLE MATERIALS  
(USED OIL, HAZARDOUS WASTE FUEL, AND PRECIOUS METALS)**

Name of Facility: Huntsman Chemical Corporation  
Address: 5100 Bainbridge Blvd  
Chesapeake VA 23320  
EPA ID Number: VAD086302866  
Facility Representative: Van H. White  
Title: Manager of Environmental Affairs  
Telephone Number: (804) 494-2740  
Inspector Name: Enca S. Damerm  
Title: Environmental Engineer Senior  
Date of Inspection: May 23, 1990

VHWMR Ref.

13.3.A.1. 1. Does the facility generate, transport, ☒ YES NO  
market or recycle hazardous wastes that are  
burned for energy recovery (hazardous waste  
fuel) in any boiler or industrial furnace  
that is not regulated as an incinerator?  
Identify: FOO3 sent to Oldover

13.4.A.1 2. Does the facility generate, market or ☒ YES ☐ NO  
recycle used oil that is burned for energy  
recovery (used oil fuel) in any boiler or  
industrial furnace that is not regulated as  
an incinerator except used oil mixed with  
hazardous wastes? Identify: \_\_\_\_\_

(Note: Used oil burned for energy recovery is regulated as used oil fuel rather than hazardous waste fuel if it is a hazardous waste solely because it exhibits a characteristic of hazardous waste and is not mixed with a hazardous waste, or if it

contains hazardous waste generated by a conditionally exempt SQG, or if it exceeds the following maximum levels of hazardous constituents (off-specification used oil fuel):

Arsenic	5 ppm
Cadmium	2 ppm
Chromium	10 ppm
Lead	100 ppm
Flash point	100 F minimum
Total Halogens	4000 ppm *

\* Used oil which contains greater than 1000 ppm total halogens is assumed to contain halogenated hazardous waste and therefore be regulated as hazardous waste fuel unless the company has shown that the used oil does not contain hazardous waste. For those wastes shown not to contain hazardous waste, the maximum allowable total halogen level is 4000 ppm.)

13.5.A  
13.5.B

3. Does the facility generate, transport or store recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these?

YES

(NO)

13.6.B.

4. Does the facility store spent batteries before reclaiming them? [Note: Persons who generate, transport, or collect spent batteries, or who store spent batteries but don not reclaim them are not subject to VHWMR Parts IV through XIII.]

YES

(NO)

---

For facilities who answered "Yes" to question 1, complete questions 5 through 10:

5. Does the facility:

a) generate b) transport c) market d) burn  
hazardous waste fuel? (circle one)

[Note: If facility is a transporter, complete transporter checklist.]

6. For marketers of hazardous waste fuel:

a. For marketers who make the claim that the waste is legitimate hazardous waste fuel, how is this done? \_\_\_\_\_

Identify each waste stream (if more than one stream is mixed together, identify each stream separately): \_\_\_\_\_

BTU value of each stream: \_\_\_\_\_

7. For marketers of hazardous waste fuel:

13.3.B.1.a 13.3.E.2	a. Does the person market hazardous waste fuel only to those persons who have completed a Notification of Hazardous Waste Activity and received an EPA Identification Number, and who burn the fuel in boilers or industrial furnaces as defined in VHWMR Part I?	YES	NO	NA
13.3.E.3.	b. Are the provisions of VHWMR Sections 6.4.E, 9. through 9.11., 10. through 10.11. and Part XI being adhered to?	YES	NO	NA
13.3.E.5.a	c. For marketers who ship hazardous waste fuel to a burner or another marketer, has the marketer first obtained a one time written and signed notice from the burner or marketer certifying that the burner or marketer has completed a Notification of Hazardous Waste Activity, and if the recipient is a burner, that the hazardous waste fuel will be burned in a boiler or industrial furnace only as defined in VHWMR Part I?	YES	NO	NA
13.3.E.5.b	d. For marketers who accept shipments of hazardous waste fuel from other marketers, has the acceptor submitted the appropriate certification identified in c above?	YES	NO	NA
13.3.E.6.	e. In addition to any applicable generator or storer recordkeeping requirements, does the marketer keep	YES	NO	NA

copies of all certification notices he receives or sends for at least three years from the date of his last transaction with the person to whom the certification was made?

- |            |    |  |     |    |    |
|------------|----|--|-----|----|----|
| 13.3.B.2   | 8. | For burners (recyclers):   | YES | NO | NA |
|            | a. | Is the hazardous waste fuel burned only in an industrial furnace, industrial boiler or utility boiler as defined in VHWMR Part I? Identify:  |     |    |    |
|            |    | <hr/>  |     |    |    |
| 13.3.F.2   | b. | Has the burner filed the appropriate Notification of Hazardous Waste Activity for his burning activities and received an EPA Identification Number?  | YES | NO | NA |
| 13.3.F.3.a | c. | For short term accumulation by generators who burn their hazardous waste fuel on site, are the applicable accumulation provisions of VHWMR Section 6.4.E. being met (see generator checklist)?   | YES | NO | NA |
| 13.3.F.3.b | d. | For existing or new storage facilities who burn their hazardous waste fuel on site, are the applicable storage provisions of VHWMR Sections 9. through 9.11. or 10. through 10.11. respectively being met?   | YES | NO | NA |
| 13.3.F.3.c |    |  |     |    |    |
| 13.3.F.4   | e. | Before the burner accepts his first shipment of hazardous waste fuel from a marketer, has he provided the marketer with a one-time written and signed notice certifying that he has completed a Notification of Hazardous Waste Activity and obtained an EPA Identification Number, and that he will burn the hazardous waste fuel only in a boiler or industrial furnace? | YES | NO | NA |
| 13.3.F.5.  | f. | In addition to any applicable generator or storer recordkeeping requirements, does the burner keep copies of all certification notices he sends for at least three years from the  | YES | NO | NA |

date of his last transaction with the person to whom the certification was made?

13.3.C.

9. For generators of hazardous waste fuel: generators of hazardous waste fuel are subject to VHWMR Parts V and VI. Complete Generator Checklist.

10. If the generator makes the claim that this is legitimate hazardous waste fuel, how is this done? high BTU content

Identify Waste: F003

BTU value: 18,000 BTU/lb

---

For facilities who answered "Yes" to question 2, complete questions 11 through 14:

11. Does the facility:

a) generate b) market c) burn

used oil burned for energy recovery? (circle one)

12. Has the inspector determined that the used oil is not mixed with hazardous waste? If not, do so.

13.4.A.2.

Has the generator mixed hazardous waste with his used oil?

YES NO *NA*

If yes, explain: \_\_\_\_\_

(Complete the hazardous waste fuel section of the checklist if the used oil is burned for energy recovery.)

13.4.B.1.a

13. For marketers of used oil fuel:

	a. Does the person market used oil fuel only to burners or other marketers who have completed a Notification of Hazardous Waste Activity and received an EPA Identification Number, and who burn the fuel in boilers, industrial furnaces or used oil-fired space heaters as defined in VHWMP Part I?	YES	NO <i>NA</i>
13.4.D.2.e	b. For marketers who ship used oil fuel to a burner or another marketer, has the marketer first obtained a one time written and signed notice from the burner or marketer certifying that the burner or marketer has completed a Notification of Hazardous Waste Activity, and if the recipient is a burner, that the used oil fuel will be burned in a boiler or industrial furnace only?	YES	NO <i>NA</i>
13.4.D.2.e	c. For marketers who accept shipments of used oil fuel from other marketers, has the acceptor submitted the appropriate certification identified in c above?	YES	NO <i>NA</i>
13.4.D.2.f	d. In addition to any applicable generator or storer recordkeeping requirements, does the marketer keep copies of all certification notices he receives or sends for at least three years from the date of his last transaction with the person to whom the certification was made?	YES	NO <i>NA</i>
13.4.D.2.a	e. Has the marketer obtained analyses or other information documenting that the used oil fuel does not exceed the maximum levels allowed in question 2?	YES	NO <i>NA</i>
13.4.D.2.c	f. Has the marketer completed a Notification of Hazardous Waste Activity and obtained an EPA Identification Number?	YES	NO <i>NA</i>
13.4.D.2.d	g. For each shipment of off-specification used oil to be burned for energy recovery initiated by the marketer, has the marketer prepared and sent an invoice to the receiving facility?	YES	NO <i>NA</i>

If yes, did the invoice contain the following information?

- |  |     |    |    |
|--|-----|----|----|
| 1. An invoice number;  | YES | NO | NA |
| 2. His own EPA Identification number and the identification number of the receiving facility?    | YES | NO | NA |
| 3. The names and addresses of the shipping and receiving facilities?                             | YES | NO | NA |
| 4. The quantity of off-specification used oil to be delivered?                                   | YES | NO | NA |
| 5. The date of shipment or delivery?   | YES | NO | NA |
| 6. The following statement; "This used oil is subject to EPA regulation under 40 CFR Part 266."? | YES | NO | NA |

13.4.D.2.f

h. Does the marketer keep copies of the following records for at least three years:

- |  |     |    |    |
|--|-----|----|----|
| 1. Copies of analysis for used oil which he claims meets specifications?   | YES | NO | NA |
| 2. An operating log containing the following information for each shipment of used oil fuel that meets specification: Name and address of the receiving facility; the quantity of used oil fuel delivered; date of shipment or delivery; and a cross-reference to the record of used oil analysis? | YES | NO | NA |
| 3. For each shipment of off-specification used oil fuel initiated, a copy of each invoice?   | YES | NO | NA |

14. For burners (recyclers) of used oil fuel:

13.4.E.2

- |  |     |    |    |
|--|-----|----|----|
| a. Has the burner filed the appropriate Notification of Hazardous Waste Activity for his burning | YES | NO | NA |
|--|-----|----|----|



activities and received an EPA Identification Number?

- 13.4.E.3      b. Prior to accepting the first shipment of off-specification used oil fuel from a marketer, did the burner provide each marketer with a one-time written and signed notice certifying that he has completed a Notification of Hazardous Waste Activity and received an EPA ID Number, and that he will burn used oil only in an industrial furnace or boiler?      YES      NO *NA*
- 13.4.E.5.      c. Has the burner kept a copy of each of the following for at least three years:
1. Each invoice he has received?      YES      NO *NA*
  2. Copies of each analysis of used oil fuel?      YES      NO *NA*
  3. A copy of each certification notice that he sends to a marketer?      YES      NO *NA*

**For facilities who answered "Yes" to question 3, complete questions 15 through 16:**

- 13.5.B.1.      15. Have persons who generate, transport or store recyclable materials used for precious metal recovery met the following requirements:
- 13.5.B.1.a      a. Notification requirements of VHWMR Part IV?      YES      NO *NA*
- 13.5.B.1.a      b. Manifest requirements of VHWMR Part V?      YES      NO *NA*
- 13.5.B.1.a      c. Has the storer of recyclable materials verified that the transporter has a valid Virginia hazardous waste transporter permit?      YES      NO *NA*
- 13.5.B.1.b      d. For transporters, obtained a transporter permit in accordance with VHWMR Section 7.3, and used a manifest system in accordance with VHWMR Section 7.5?      YES      NO *NA*

13.5.B.1.b	e. For storers, have they followed the appropriate manifesting and recordkeeping requirements of VHWMR Section 9.4?	YES    NO <i>NA</i>
------------	---	---------------------

13.5.B.2      16. For persons who store recyclable materials, have the following records been kept to document that they are not accumulating these materials speculatively:

a. Records showing the volume of these materials stored at the beginning of the calendar year; and	YES    NO <i>NA</i>
--	---------------------

b. The amount of these materials generated or received during the calendar year; and	YES    NO <i>NA</i>
--	---------------------

c. The amount of materials remaining at the end of the calendar year?	YES    NO <i>NA</i>
---	---------------------

d. Has the storer turned over at least 75% of his stored recyclable materials in the preceding calendar year?	YES    NO <i>NA</i>
---	---------------------

---

**For facilities who answered "Yes" to number 4:**

13.6.B.      17. For facilities who store spent lead-acid batteries before reclaiming them:

13.6.B.1.	a. Has the facility filed a Notification	YES    NO <i>NA</i>
-----------	--	---------------------

13.6.B.3.	b. Has the facility complied with the appropriate sections of VHWMR Part X (except 10.1.C., 10.4.A., and 10.4.E.)?	YES    NO <i>NA</i>
-----------	--	---------------------

13.6.B.4.	c. Has the facility complied with all applicable provisions of VHWMR Parts XI and XII?	YES    NO <i>NA</i>
-----------	--	---------------------

18. Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

APRIL 1990

CHECKLIST FOR HAZARDOUS WASTE  
INSPECTIONS OF TANKS

Name of Facility: Huntsman Chemical Corporation

Address: 5700 Bainbridge Blvd.  
Chesapeake VA 23320

EPA ID Number: VAD086302866

Facility Representative: Van. H. White

Title: Manager of Environmental Affairs

Telephone Number: ( 804 ) 494-2740

Inspector's Name: Erica S. Dameron

Title: Environmental Engineer Senior

Date of Inspection: May 23, 1990

VHWMR Ref.

6.4.E.1.e.

1. Has the generator notified the Executive Director of the location of all hazardous waste tank accumulation areas?

YES (NO) ✓

List all of the tank accumulation areas and give a brief description of each one. Include the age of each tank, if known, and the type of waste stored.

4 tanks @ 10,000 gallons in outside storage area

4 tanks @ 12,000 gallons in outside storage area

Is the tank used to store hazardous waste for greater than 90 days (or 180 or 270 days for a SQG)?

YES (NO)

If yes, then has the facility applied for a hazardous waste storage permit?

YES NO

6.4.E.1.c.	2. Is each tank marked with the words "Hazardous Waste"?	YES	<input checked="" type="radio"/> NO
9.9.A.1.	3. Is the tank used to store or treat hazardous waste that contains no free liquids as demonstrated by the Paint Filter Liquids Test (i.e., solids only)?	YES	<input type="radio"/> NO
9.9.A.2.	4. Does the tank (including sumps) serve as part of a primary secondary containment system to collect or contain releases of hazardous waste?	YES	<input type="radio"/> NO
9.9.D.1.	5. Does the facility have any of the following units:		
9.9.D.1.a.	a. New tank systems installed since January 1, 1988?	YES	<input type="radio"/> NO
9.9.D.1.b	b. Existing tanks used to store F020, F021, F022, F023, F026, or F027?	YES	<input type="radio"/> NO
9.9.D.1.c	c. Existing tanks whose documented age is greater than fifteen years of age?	YES	<input type="radio"/> NO
9.9.D.1.c.	d. Existing tanks whose documented age is less than fifteen years of age?	<input checked="" type="radio"/> YES	NO
	If <u>yes</u> , when will the tank become fifteen years old? <u>4 @ 12,000 gallons 1991</u> <u>4 @ 10,000 gallons 1994</u>		
9.9.D.1.d.	e. Existing tanks for which the age cannot be documented within eight years of January 12, 1987? If <u>yes</u> , when will the facility become fifteen years old?	YES	NA NO
9.9.D.1.	6. Has secondary containment been provided for each unit identified by (a) through (e) above?	<input checked="" type="radio"/> YES	NO
	If <u>no</u> , identify the units for which secondary containment has not yet been provided.		
	_____		
	_____		
	_____		

9.9.D.2

7. Does the secondary containment provided for units identified by 5(a) through (e) meet the following requirements:

9.9.D.2.a.

a. Is the secondary containment designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system?

(YES)

NO

9.9.D.2.b.

b. Is the secondary containment system capable of detecting and collecting any releases and accumulated liquids until the collected material can be removed? *visual detection, high level alarm on tank to prevent overfilling*

(YES)

NO

9.9.D.3.a

c. Is the secondary containment constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and of sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste, climatic conditions, stress of installation, and the stress of daily operation?

(YES)

NO

9.9.D.3.b.

d. Is the secondary containment placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system owing to settlement, compression or uplift?

(YES)

NO

9.9.D.3.c.

e. Is the secondary containment provided with a leak-detection system that is designed or operated so that it will detect the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24- hours or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24-hours?

(YES)

NO

9.9.D.3.d.

f. Is the secondary containment system sloped or otherwise designed or

(YES)

NO

operated to drain and remove liquids resulting from leaks, spills, or precipitation, and has waste that has spilled or leaked and accumulated precipitation been removed from the secondary containment within 24-hours or in as timely a manner as possible to prevent harm to human health or the environment?

9.9.D.4. 8. Does the secondary containment for the tanks consist of one or more of the following:

9.9.D.4.a	a. A liner (external to the tank); or	YES	<input checked="" type="radio"/> NO
9.9.D.4.b	b. A vault; or	<input checked="" type="radio"/> YES	NO
9.9.D.4.c	c. A double-walled tank; or	YES	<input checked="" type="radio"/> NO
9.9.D.4.d	d. An equivalent device as approved by the Executive Director?	YES	<input checked="" type="radio"/> NO

---

FOR EXTERNAL LINER SYSTEMS ONLY:

9.9.D.5.a.	9. Is the external liner system:	
9.9.D.5.a.1	a. Designed or operated to contain 100% of the capacity of the largest tank within its boundary; and	YES <i>NA</i> NO
9.9.D.5.a.2	b. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain the precipitation from a 25-year, 24-hour rainfall event; and	YES <i>NA</i> NO
9.9.D.5.a.3	c. Free of crack or gaps; and	YES <i>NA</i> NO
9.9.D.5.a.4	d. Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank?	YES <i>NA</i> NO

---

FOR VAULT SYSTEMS ONLY:

9.9.D.5.b. 10. Is the vault system:

9.9.D.5.b.1.	a. Designed or operated to contain 100 % of the capacity of the largest tank within its boundary; and	<input checked="" type="radio"/> YES	NO
9.9.D.5.b.2.	<i>approx size: 50 ft x 50 ft x 4.5 ft = 11250 ft<sup>3</sup> = 84,150 gal.</i> b. Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient capacity to contain the precipitation from a 25-year, 24-hour rainfall event; and	<input checked="" type="radio"/> YES	NO
9.9.D.5.b.3.	c. Constructed with chemical-resistant water stops in place at all joint (if any); and	<input checked="" type="radio"/> YES	NO
9.9.D.5.b.4.	d. Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will <u>prevent migration of waste into the concrete</u> ; and	<input checked="" type="radio"/> YES	NO
9.9.D.5.b.5	e. Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated is ignitable or reactive; and	<input checked="" type="radio"/> YES	NO
9.9.D.5.b.6.	f. Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure?	<input checked="" type="radio"/> YES	NO

---

**FOR DOUBLE-WALLED TANKS ONLY:**

9.9.D.5.c.	11. Is the double-walled tank:		
9.9.D.5.c.1	a. Designed as an integral structure (i.e., an inner tank with an outer shell) so that any release from the inner tank is contained by the outer shell; and	YES	NO
9.9.D.5.c.2	b. Protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell; and	YES	NO
9.9.D.5.c.3.	c. Provided with a built-in,	YES	NO

continuous leak detection system capable of detecting a release within 24-hours or at the earliest practicable time; and

---

FOR ALL TANK UNITS:

- |           |  |                                      |                                     |
|-----------|--|--------------------------------------|-------------------------------------|
| 9.9.D.6   | 12. Does the tank system have ancillary equipment?   | <input checked="" type="radio"/> YES | <input type="radio"/> NO            |
|           | <p>If <u>yes</u>, does the ancillary equipment have secondary containment (e.g., trench, jacketing, double-walled piping) which meets the requirements of item #7 above? If <u>no</u>, please explain.</p> <p><u>all pipe lines are above ground</u><br/> <u>connecting valves are above</u><br/> <u>the secondary containment</u></p> | YES                                  | <input checked="" type="radio"/> NO |
| 9.9.D.8   | 13. For all tank systems <u>for which secondary containment meeting the above requirements has not yet been provided</u> , has the facility complied with the following for the units:   |                                      |                                     |
|           | <i>it has been provided</i>  |                                      |                                     |
| 9.9.D.8.a | a. For non-enterable underground tanks, has a leak test been conducted at least annually?  | YES                                  | NO                                  |
| 9.9.D.8.b | b. For <u>other</u> than non-enterable underground tanks and for all ancillary equipment, an annual leak test or other internal inspection or other tank integrity examination by an independent, Virginia-registered professional engineer that addresses cracks, leaks, corrosion and erosion conducted at least annually?           | YES                                  | NO                                  |
| 9.9.D.8.c | c. Has the owner/operator maintained on file at the facility a record of the results of the above assessments?   | YES                                  | NO                                  |
| 9.9.B.1   | 14. For each existing tank system which does not have secondary containment meeting the requirements of VHWMR Section 9.9.D [#7, 8, 9, 10, 11 and 12 above], has the owner/operator determined that the tank system is not leaking or is unfit for use?  | YES                                  | NO                                  |



		YES	NO
	If <u>yes</u> , is a copy of this written assessment reviewed and certified by an independent Virginia-registered professional engineer kept on file at the facility?		
9.9.E.2.	15. Has the owner/operator used appropriate controls and practices to prevent spill and overflows from tank or secondary containments systems, including	(YES)	NO
9.9.E.2.a	a. Spill prevention controls (e.g. check valves, dry disconnect couplings)? Describe: <u>high level alarm on tanks and reported to control room</u>	(YES)	NO
9.9.E.2.b	b. Overfill prevention controls (e.g. level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank)? Describe: _____ _____	(YES)	NO
9.9.E.2.c	c. Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation?	(YES)	NO
9.9.F.1	16. Does the owner/operator inspect the following at least once each operating day:		
9.9.F.1.a	a. Overfill/spill control equipment (eg., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order; and <u>operations report status to computer control system</u>	(YES)	NO
9.9.F.1.b	b. The aboveground portions of the tank system, if any, to detect corrosion or releases of waste; and	(YES)	NO
9.9.F.1.c	c. Data gathered from monitoring equipment and leak detection equipment (e.g. pressure and temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and	(YES)	NO

- 9.9.F.1.d                      d. The construction materials and the area immediately surrounding the externally accessible portion of the tank system including secondary containment structures to detect erosion or signs or releases of hazardous waste?                      YES                      NO
- 9.1.F.4.  
9.9.F.3.                      17. Is a log of the inspections maintained at the facility?                      YES                      NO
- 9.9.F.2                      18. For all underground and in-ground hazardous waste storage tanks, are cathodic protection systems present?                      YES ~~NA~~ NO
- If yes, is the cathodic protection inspected according to the following schedule:
- 9.9.F.2.a                      a. The proper operation of the cathodic protection system shall be confirmed within six months after initial installation, and annually thereafter;                      YES ~~NA~~ NO
- 9.9.F.2.b                      b. All sources of impressed current shall be inspected and/or tested, as appropriate, at least bimonthly;                      YES ~~NA~~ NO
- 9.9.F.2.c                      c. Is inspection of items a and b above documented in the facility operating record?                      YES ~~NA~~ NO
- 9.9.D.8.d                      19. Has any tank system or component been found to be leaking or unfit for use as a result of a leak test or assessment?                      YES                      NO
- 9.9.E.3                      20. Has a leak or spill occurred from any tank system?                      YES                      NO

If the answer to questions 19 or 20 was yes, complete questions 21 through 27. Otherwise, skip to number 28.

- 9.9.G                      21. For tank systems or secondary containment which have been determined to be leaking or unfit for use, or from which there has been a leak or spill, has the owner/operator satisfied the

following requirements:

9.9.G.1	a. Has the owner/operator immediately stopped the flow of hazardous waste into the tank system or secondary containment and inspected the system to determine the cause of release?	YES <del>NA</del> NO
9.9.G.2.a	b. For releases from the tank system, has the owner/operator, within 24-hours or at the earliest practicable time, removed as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system?	YES <del>NA</del> NO
9.9.G.2.b	c. For releases to a secondary containment system, have all released materials been removed within 24-hours or in as timely manner as is possible to prevent harm to human health and the environment?	YES <del>NA</del> NO
9.9.G.3.a	d. Prevented further migration of the leak or spills to soils or surface water?	YES <del>NA</del> NO
9.9.G.3.b	e. Removed and properly disposed of any visible contamination of the soil or surface water?	YES <del>NA</del> NO
9.9.G.4.a	22. Have all releases to the environment been reported to the Executive Director within 24-hours of detection?	YES <del>NA</del> NO
9.9.G.4.c	23. Within 30 days of detection of release, has a report been submitted to the Executive Director?	YES <del>NA</del> NO
	If <u>yes</u> , did the report contain the following information:	
9.9.G.4.c.1	a. Likely route of migration of the release; and	YES <del>NA</del> NO
9.9.G.4.c.2	b. Characteristics of the surrounding soil; and	YES <del>NA</del> NO
9.9.G.4.c.3	c. Results of any monitoring or sampling conducted in connection with	YES <del>NA</del> NO

	the release, if available, or as soon as they became available; and	
9.9.G.4.c.4	d. Proximity to downgradient drinking water, surface water, and population areas; and	YES <del>NA</del> NO
9.9.G.4.c.5	e. Description of response actions taken or planned?	YES <del>NA</del> NO
9.9.G.5.c	24. If the cause of the release was a leak from the primary tank system into the secondary containment system, was the system repaired prior to returning the tank system to service?	YES <del>NA</del> NO
9.9.G.5.d	25. If the cause of the release was a leak to the environment from an underground or on-ground component of a tank system without secondary containment, did the owner/operator provide secondary containment before returning the unit to service?	YES <del>NA</del> NO
9.9.G.5.d	26. If the cause of the release was a leak to the environment from an aboveground component of a tank system without secondary containment, was the component visually inspected and repaired?	YES <del>NA</del> NO
9.9.G.6	27. For all units which have been repaired, if any, did the owner/operator obtain certification from an independent, Virginia-registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system <u>prior</u> to returning the unit to service?	YES <del>NA</del> NO
9.9.H.1	28. At closure of any hazardous waste tank system, did the owner/operator remove or decontaminate all hazardous waste residues, contaminated containment system components, contaminated soil, and structures and equipment contaminated with waste, and manage them as hazardous waste?	YES <del>NA</del> NO
9.9.I	29. Are ignitable or reactive wastes placed in the tank system?	(YES) NO

If yes, :

- |           |  |       |       |
|-----------|--|-------|-------|
| 9.9.I.1.a | a. Was the waste treated, rendered or mixed before or immediately after placement in the tank system so that the resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste; or  | YES   | (NO)  |
| 9.9.I.1.b | b. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or<br><i>no smoking and no lights</i>  | (YES) | NO    |
| 9.9.I.1.c | c. The tank system is used solely for emergencies?   | YES   | (NO)  |
| 9.9.I.2   | d. Does the owner/operator comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys or an adjoining property line as required in NFPA's "Flammable and Combustible Liquids Code"?                                       | (YES) | NO    |
| 9.9.J.1   | 30. Are incompatible wastes, or incompatible wastes and materials placed in the tank system?   | YES   | (NO)  |
|           | If <u>yes</u> , was the tank and all related equipment decontaminated first?   | YES   | NA NO |
| 9.9.K     | 31. Has the tank system been used to treat chemically or to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system; or to treat chemically a hazardous waste with a substantially different process than any previously used in that tank system? | YES   | (NO)  |
|           | If <u>yes</u> , :  |       |       |
| 9.9.K.1   | a. Did the owner/operator first conduct waste analyses and trial treatment or storage tests?   | YES   | NA NO |
| 9.9.K.2   | b. Did the owner/operator obtain written, documented information on similar waste under similar operating  | YES   | NA NO |

conditions to show that the proposed treatment or storage will not cause the tank, ancillary equipment or the secondary containment to rupture, leak, corrode or otherwise fail?

32.      Comments: \_\_\_\_\_  
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